Gender Stratification and Gender Segregation: Does Education Matter Gender Income Gap? A Case Study from China

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Abstract

It is widely accepted that education is fundamental to reduce income inequality. Moreover, gender role and gender difference all contribute to enlarge gender income gap in contemporary social world. Theoretically speaking, from gender stratification and gender segregation perspectives, physical sex difference, cognitive sex difference, and social sex difference are served as crucial underpinnings to shape and construct gender income gaps inherently. In this sense, the ultimate purpose of this research is to examine the relationship between gender income gap and education from gender stratification and gender segregation perspectives. Applying the data of Chinese Urban and Rural Residents Income Distribution and Living Conditions Survey (2014), I estimated and measured different variables to investigate the relationship between education and gender income gap. The results in this study indicated that occupational gender inequality increased gender income gaps in the labor market. This study also suggested that there is no sufficient reason to be positive toward further educational changes that would lead to large decreases in gender income gaps. In other words, if women keep their current trajectory of enhancing their educational credentials that related to men, they still encounter various barriers of gender segregation in college majors in current Chinese higher education system. Indeed, although women are educational improved, the gendered organization of higher education still maintains substantial impediments to reduce gender income gaps.

Key words: Gender Income Gaps, Education, Gender Role, and Gender Difference, Gender Stratification, Gender Segregation

Introduction

Gender differences in economic world are highly debated in consistent with gender differences in the labor market participation. Gender differences in labor productivity and income are primarily the results of differences in economic activities of men and women. Indeed, female and male 's job differ greatly, whether across sectors, industries, occupations, and types of jobs. Moreover, all these differences involved in economic development and structure of employment. Thus, generally speaking, how to eliminate employment segregation by gender is closely associated with educational access and career productivity. In addition, education is always considered as curtail pathway to be successful for disadvantage groups. Education is closely related to success in labor market. In other words, education is essential to reduce income inequalities (e.g., Gill and Leigh 2000; Loury 1997). Moreover, both education and employment experience is valuable inputs into production, gender differences contribute to differences in productivity and incomes. Similarly, less education and lower access to job training among female entrepreneurs lead their productivity down. Especially, in developing countries, gender differences in human capital have traditionally been a crucial contributor to the gender income gap. Particularly, many research focused on examining educational influences on enlarging gender income gaps.

However, there are few studies on systematically analyzing the mediating role of education in gender income inequality. Therefore, this research focuses on addressing the role of education in mediating gender income inequality for young college-educated workers. In this sense, the ultimate goal of this study is to investigate the relationship between education and gender income difference in the case of China.

Theoretical Framework

In this study, from gender stratification and gender segregation perspectives, three major dimensions, including physical sex difference, cognitive sex difference and social sex difference, are applied to elaborate and examine gender income gap. Specifically, there existed lots of discussions on gender difference and gender socialization, including psychoanalytic, social learning and cognitive development. For example, Freud's psychoanalytic theory involves in children's observations on their genitals. Cognitive development theories focused on children learning gender stereotypes by organizing their social world. Moreover, from the social constructionist perspective, there existed various hidden assumptions that focused on gender polarization (men and women are different and these differences constitute a central organizing principle of social life) androcentric (males are superior to females; male experience is the normative standard); and biological essentialism (the first two lens are due to biological differences between the sexes). Based on these narratives, physical sex difference, cognitive sex difference and social sex difference all contribute to examine gender income difference from gender stratification and gender segregation perspectives.

Physical Sex Difference

Particularly, from a gender segregation perspective, physical sex difference is considered as one crucial dimension to understand gender role and gender difference inherently. From a biology perspective, female have small amounts of the male hormone testosterone and men have small amounts of female hormones like progesterone and estrogen. In childhood, the differences are quite small, but they increase markedly in adolescents and adults. Specifically, the two surges of hormones, prenatally and during adolescence are important to gender differences. The surge of hormones prenatally affects behavior in childhood, and the surge during adolescence activates and enhances the early predispositions created by the prenatal surge. Moreover, brain becomes increasingly specialized with age, with right hemisphere more specialized for spatial tasks and left hemisphere more specialized for verbal tasks. Women who suffer left hemisphere damage are less likely to have damage to verbal abilities. Biologically oriented theories also explain gender development and differentiation (Archer, 1996; Buss, 1985; Simpson & Kenwick, 1997). The ancestral origin of differences in gender roles is analyzed in terms of mate preferences, reproductive strategies, parental investment in offspring, and the aggressive nature of males. Moreover, contemporary gender differences stemmed from successful ancestral adaptation to the different reproductive demands faced by men and women. Men contributed less to their offsprings' chances of survival so they sought multiple partners and were less choosy with whom to mate. Women involved into aggressors, social dominators and prolific maters because such behavior increased their success in propagating their genes. From a evolutionary psychology perspective, current gender differences, including the number of sexual partners preferred, criteria for selecting sexual partners, aggression, jealousy and the roles they fulfill stemmed from the ancestral sex differentiated reproductive strategies (Buss & Schmitt, 1993). Thus, gender segregation is deeply rooted in physical sex difference, which is regarded as one crucial dimension to understand gender role and gender difference inherently

Cognitive Sex Difference

For this study, psychoanalytic theories also provide solid evidences to explain gender difference development. Specifically, psychoanalytic theory has a pervasive influence in developmental psychology in terms of studies of gender segregation and stratification. A clear relationship between identification with the same-sex parent and gender-role adoption has never been empirically verified (Hetherington, 1967; Kagan, 1964; Payne and Mussen, 1956). Moreover, from a cognitive development theory perspective, Kohlberg (1966) suggested that child found physical and behavioral clues and classified as a girl. There existed three stages, including gender identity, gender stability, and gender constancy. Specifically, gender identity focused that they are identified as a boy or girl and then organized incoming information; gender stability involves that child accepts the idea that male remain male and females remain female; gender constancy concentrates on recognizing that superficial changes in appearance or in activities will not change a person's gender.

Moreover, from a information-processing approach, gender-schema theory can be considered as key concept to examine gender differences accounting that children develop schemas or native theories that help them organize gender differences and gender roles, cornering on what kinds of information to look for and how to interpret this information. Furthermore, gender schema theory offers a beneficial framework to examine the cognitive processing of gender information (Carter & Levy, 1988). Indeed, both Kohlberg's cognitive development and gender-schema theories all contribute to examine cognitive sex difference inherently. Moreover, Kohlberg argued that achievement of gender constancy should influence children's gender-typed choices. This is massively contradicted by observation of children's behavior. However, gender schema theory does not make this prediction. It proposes that children simply need to be aware of basic information about gender, such as identifying activities as gender appropriate (Bem, 1981). Based on previous elaboration, in psychoanalytic theories domain, gender schema theory and cognitive development theory all shed more light on investigating gender role and gender difference fundamentally.

Social Sex Difference

From sociological theories perspective, gender difference is always considered as a social construction rather than a biological given. In other words, gender differentiation depend more on in social and institutional practices than in fixed properties of the individual. Moreover, gender stereotypes shape the perception, evaluation and treatment of males and females in selectively gendered ways that beget the very patterns of behavior that confirm the initial stereotypes. Many gender differences in social behavior are viewed as products of division of labor between the sexes that get replicated through sociostructural practices governed by disparate gender status and power (Eagly, 1987). Moreover, many sociologists reject the dichotomous view of gender, in that the similarities between men and women in how they think and behave far exceed the differences between them (Epstein, 1988). The homogeneous gender typing disregards the vast differences among women and the similarly vast differences among men depending on their socioeconomic class, education, ethnicity, and occupation. In accordance with the development of social, cultural, political and economic development, the external environments or factors, such as SES, family formation, education background, race, and employment, have enlarged social sex difference implicitly. To be summarized, from gender stratification and gender segregation perspectives, physical sex difference, cognitive sex difference and social sex difference all contribute to shape the overall landscape of gender role and gender differences inherently (See Figure 1).
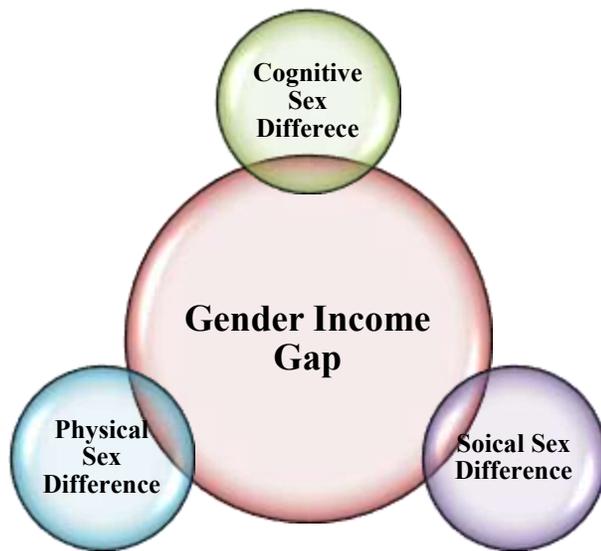

Figure 1: Theoretical Framework of Gender Income Gap

Literature Review

Education Factors Matter Gender Income Gap

Generally speaking, gender income differences involved in education factors, including choices of a college major, conative skills as measured by standardized test scores, amount of education and selectivity of the college attended.

From a educational perspective, gender income gaps is also closely related to the situation that women major in fields that lead to jobs that are not rewarded with high incomes (Bradley 2000; Davies and Guppy 1997; Gerber and Schaefer 2004). For example, students who major in some fields such as engineering and computer science tend to earn more than do those who major in education and humanities (Gerber and Schaefer 2004). Indeed, choice of college majors is considered as one reason that explained gender gaps in salary for college graduates. In addition, this horizontal dimension of gender difference is pivotal to understand gender inequality in salary globally (Bradley, 2000). In this view, the labor market provides investment in human capital with high income. The gender dominance of the major might be the most significant difference in field of study in terms of traditional male fields have been obtained more than have traditionally female ones (Bobbitt-Zeher, 2007). Moreover, some scholars argued that gender income gaps involved in gender differences in cognitive skills and ability by measuring standardized test scores. Cognitive skills and ability sounds like to impact the gender gaps as well as through the choice of college major and access to job markets (Farkas et al. 1997; Paglin and Rufolo, 1990). For example, in the U.S., since 1970s, math and science abilities have been considered as more predictive of income (Mitra, 2002). Thus, gender income difference is a result of differences in highly valued skills, such as math skills, which lead to lower paying jobs for women. As above illustrated, gender income gaps are likely to the gender disparities in college majors and differences in standardized test scores. Moreover, some educators argued that women's attendance at less selective schools is related to women's disadvantage situation in current labor market. For example, college prestige has a significant impact on income (Jacobs, 1999). Moreover, men are more likely to attend selective universities and institutions than are women (Davies and Guppy 1997, replicating the findings of Hearn 1991). These studies suggested that gender differences in the choice of college major, cognitive skills and abilities all contributed to examining gender income gaps inherently (Bobbitt-Zeher, 2007).

Non-Education Factors Matter Gender Income Gap

Many literatures contributed to discussing the relationship between non-education forces and gender income gaps. Moreover, non-educational factors also play significant roles, such as family formation, career development, and career aspiration, in affecting the relationship between education and gender income gaps. Specifically, family factor effects are likely to impact on paid labor and married men can obtain higher payment than do unmarried men, while some evidences of a salary disadvantage for married women (Kilbourne et al. 1994). Moreover, the impact of family formation on gender income gaps is closely associated with women's decreased labor force participation (Budig and England 2001). In other words, women historically have less job experience and involvement in part-time work more than have men. In addition, many research argued that different conditions of employment for female and male lead to gender income gaps (Blau and Kahn 2000; England 1992; Huffman 2004). Given the large number of employment gender segregation, women have to change jobs for gender integration with less benefits and promotional opportunities (Bobbitt-Zeher, 2007). Additionally, there also existed other work-related factors that impact inequality of income. For instance, men are likely to get longer tenure with employers, greater full-time work experience, and more training (Joy, 2000). Furthermore, from a gender socialization perspective, men and women hold different social value and aspiration that impacted on gender income gaps fundamentally. Based on elaborated above, focusing on young workers is essential to understand the development of educational work in consistent with family factors for gender equality. Thus, providing a fresh insight into gender income gaps is essential to investigate the relationship between education and gender income gap. Based on previous literature about the relationship among education factors/non-education factors and gender income differences, some relevant key factors related to education/ non- education factors, including college majors, standardized test scores, amount of education, selectivity of the college attended, family formation, career development, and career aspiration all contribute to examine the rationales of gender income gaps explicitly.

Data and Methodology

Data

In this study, Chinese Urban and Rural Residents Income Distribution and Living Conditions Survey (2014) offers a rich database for examining the relationship between educational elements and income gaps between young female and male in contemporary China. The baseline data are nationally representative base on a sample of almost 19,978 students from about 1,056 family households. This data set is particularly well appropriate to address my research question because it contains information from the individual transcripts for postsecondary institutions attended, family history and labor market participation and earnings.

In addition, Chinese Urban and Rural Residents Income Distribution and Living Conditions Survey (2014) also provide an opportunity to explain potential explanations for gender income gaps. Missing values were handle by multiple imputation (Allison, 2002).

Measurements

In this analysis, the dependent variable is annually income, measured by the respondent's reported annual income in 2013. This variable contains the respondents' answers to following question: " Including all of your salary, and commissions you earned in 2013, about how much did you earn from employment before taxes and all other deduction?" the education variables and non-education variables are measured by following categories:

1. Education Variables: The independent variables included the possible causal factors discussed in previous literature review. As a measure of cognitive skills, I applied standardized test score from students' college entrance examinations. Moreover, factors related to educational field, degree and institutions were also included in this research. For example, college major was measured in dummy variables for the type of major: business, math, natural science, engineering, social sciences and humanities. Moreover, in order to test gender composition effects, the percentage female of each major in this data has been measured and then calculated the percentage female for each major in this data by applying degree awarded in each field of study to male versus female. Moreover, the sample mainly focused on those with four-year degrees, graduate and professional degrees. These three dummy variables focused on the highest degree attained–bachelor's degree, master's degree, and doctoral degree. In addition, the selectivity of the higher education institutions has been measured in this research. Selectivity was tested in an interval elements ranging from not selective (1) to highly selective (4). College types are also identified as 985 Project/ 211 Project, other public university/ independent college/ private college and university/ and foreign university. In addition, high school type is divided by three major type, including national/ provincial level schools/ city or district key level schools/ county level or other non-key middle school. In addition, the employment statuses are also divided as employer, employee and self-employment.

2. Non-Education Variables: Basic Background, Family Formation, Work Status and Career Values: This research focused on understanding the contribution of educational factors to the gender income gap for young workers. Additionally, non-educational factors that elaborated in previous literature review are also closely related to gender income differences. For example, family formation features are key variables, including marital statues and single parent statues (1= A single parent, 0= not a single parent) in a continuous fashion. Moreover, number of hours worked was considered as continuous variables that represent the total number of hours, that young worker at all jobs in an average week in 2013, which was also indicated the year of the income variables. Moreover, several job characteristics in this analysis has been measured as dummy variable for for-profit part gauged the type of employer for whom the young workers worked at a private, for-profit firms. The non-for – profit, governmental, and military employers were the reference category in this sector. This data also included codes for industry in which young workers was employed in 2013. For this research, dichotomous dummy variables for each of the 23 industries have been included in this sample (See the Appendix 1). In order to make sure the respondents' occupations, this data aggregated the subjects' response to the question of the current or previous work title into more broad occupational categories with dummy variables for each of these occupational categories that were represented in this sample. Moreover, in accordance with the relationship between job quality and income equality (Reskin, 1993), job training is measured as s dichotomous variable (1= received job training in the previous 12 months; 0= donated that the respondent get no job training). Moreover, the measure of values contained that the importance of having lots of money ranging from (1=not important) to (3=very important). In addition, socioeconomic status of the family (SES) has been measured and the respondent's race as controls. Specifically, the socioeconomic composite score that included parents' education, income, and occupation calculates the SES.

Analytic Process and Results

In this research, two regressions have been applied, which including generalized least squares regression and regression decompositions (Bobbitt-Zeher, 2007). Specifically, estimated generalized least squares regression focused on examining the effects of independent variable of interest on income with clustered sampling design of this data. Hence, this method is an appropriate analytical method to adjust estimate of standard error. The binary variable (1= female, 0= male) has been interpreted in each model. Moreover, this coefficient indicated that the effect of being female versus being male on salary of the other variables. For example, a negative coefficient for female suggested that an income gap advantaging men.

In other words, the coefficient for female in the baseline model may be compared with the coefficient for female in each additional model. The individual effect of education factors can be tested in this research. Moreover, the regression decompositions focused on influences of each individual factor in the regression model. This technique concentrated on estimating the influences of gender differences in the characteristics variables. The decompositions of male's and female's coefficients have been calculated as the standard in terms of the choice of standard might impact on the effects (Daymont and Andrisani 1984; Marini and Fan 1997). Based on the results from Marini and Fan, average of the estimates has been calculated as following:

Male Standard Formula: $\overline{x_{male\ \iota}} - \overline{x_{f\iota}} = \sum b_m \left(\overline{x_{male}} - \overline{x_f} \right) + \mathcal{E}_{male}$

Female Standard Formula: $\overline{x_{famle\ \iota}} - \overline{x_{f\iota}} = \sum b_l \left(\overline{x_{female}} - \overline{x_f} \right) + \mathcal{E}_{female}$

Where the left-hand side represents the mean difference in the income for men and women; the right-hand side focuses on the differences in men's and women's means multiplied by the slope of male and female model and then plus the differences in the income that unexplained (Bobbitt-Zeher, 2007). Descriptive statistic for the gender income gap and education for male and female has been shown as follows: this result suggested that gender differences in educational outcomes with women garnering better grades and women scoring better on standardized tests in college entrance examination. At collegiate level, there are significant gaps in the majors that men and women choose. Specifically, men are more likely to choose majors in business, math, natural science, and engineering while women are more likely to choose majors in social science, humanities and education. Moreover, the average college major for female is 64 percent while the average college major for male is 51 percent. This result suggested that considerable gender segregation of college majors. It is also worth noting that a large number of male and female have completed college degree while few female and male have completed graduated and professional degrees. There is on significant differences in the institutional selectivity of the bachelor's degree institutions that female and female attend. In addition, descriptive statistical results of non-educational factors suggested that several differences by gender, such as women are more likely, than men to be married or in marriage relations. Male spends more time in work in a typical week. Female and male hold different occupations and industries. According to the data, college graduates were always working full time in 2013. There also existed considerable differences in average income. Specifically speaking, the female earned 38,725.18 RMB less than 43,055.13 RMB that male earned. Thus, the substantial gender gap in come in contemporary China is major issue among young workers with college degrees.

Statistically speaking, given that female are making importantly less money than male, regression analysis has been applied to examine which factors that explain the gender income gaps for young college graduates. The EGLS regression suggested, in the baseline model, female average 28,725 per year less than male per year when no factors are controlled. Moreover, given those non-education factors, including gender, race, and social class are totally all ascribed statuses that importantly influence on the gender gap in earnings (See table 2). Furthermore, the additional model also indicated that the gender of college majors is the major educational impact on gender difference in salary (Model 3). The other educational factors include cognitive skills, higher degrees, and college selectivity. When female and male have same standardized test score, the female coefficient is reduced to -38,725.18, which indicated that gender differences in cognitive skills explain 10 percent of the total income gap among these college graduates. In other words, female's higher scores suppress the gap from being larger than it is. In model 7, selectivity of the bachelor's degree has little effect on the income gaps, indicting that 4 percent when only SES is controlled. When college-educated workers have the same majors, test scores, and levels of graduate education and attend the same types of education institutions, female still get less their male counterparts get. Moreover, the total influences of education factors on gender income gap also suggested that a substantial impact on schooling on income inequality without given impacts of values, family formation, and work. Table 3 has shown that the average difference in salary between female and male and add clusters of independent variables in consistent with the general life course sequence. These outcomes all indicated that the gender income gap decreased when education is regarded alongside background factors and values. Model 5 suggested that the additional factor of family formation yields not much reduction in income gap. However, in model 6 as best model in this study, it can explain 67.2 percent of the total income gap. Hence, given the best model (model6), the regression decomposition have be applied to examine how much of the total gap in female and male's income (See Table 4). Specifically, the contribution of the educational factors is substantially smaller than indicated by the regression model that did not control for non-educational effects.

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Moreover, the percentage of women and men of college majors could explain 15.1 percent of the income gap, while the standardized test score explain another 4.9 percent. However, the major differences in male and female's income can be concluded to work-related characteristics, including occupation and industry. In conclusion, in this study, the EGLS regression models presented results in Table 2 and Table 3 as well as the decomposition findings from Table 4. The gender composition of college majors has a considerable effect on the gender income gap. However, the occupational-related factors are more robust for understanding the income differences.

Table 1: Means for income and education variables, which include significant tests of the means for female versus male by imputation 3

Variable	Sample mean (N=1363)	Women's Mean (N=674)	Men's Mean (N= 689)	*t*-Test of Mean Difference
Income in 2013(RMB)	43055.13	38725.18	47631.85	4.0158***
Average Monthly Income	2169.78	2015.49	2332.85	3.8604***
Birth of Data	1985	1985	1985	-1.3659
Standardized Test Score College Entrance Examination	445.82	447.99	443.54	0.5156
College Major Business Major	.23	.20	.25	1.99*
Math/ Natural Science/ Engineering major/	.27	.24	.29	8.79***
Social Science/ humanities major/ Education Major	.50	.56	.46	-5.67***
Percentage Female of Major	57.08	65.21	34.79	-18.69* ***
College Type 985 Project/ 211 Project/				
Other Public University/ Independent College/ Private College/ University/	.22	.25	.24	8.99***
Foreign University	.64	.71	.65	3.25***
Higher School Type National/ Provincial Level/				
City or District Key level school/	.14	.04	.21	-7.24* ***
County level or other non-key middle school	.12	.13	.15	8.15***
Employment Status Employer Employee	.34	.42	.43	1.98*
Self-employment	.54	.55	.52	3.25***
	.14	.12	.15	4.31***
	.56	.67	.57	4.51***
	.40	.21	.48	-3.41***

Note: * p<. 05, **p<. 01, ***p<. 001 (two-tailed tests).

Table 2: EGLS Regression Coefficients for Female and Percentage of the Gender Income Gap Explained with the Alternative Model

Model Number	Model Description	Income Gap (b female)	Percentage of Gap Explained
1	Female	-7753.639	_
2	Female, background, percentage female of college major	1635.345	4.3
3	Female, background, percentage female of college type	-3408.431	21.98
4	Female, background, percentage female of higher school type	-1771.48	23.86
5	Female, background, Percentage of female of employment status	346.192	4.2
6	Female, background,	-6640.12	4.5
7	Female, background, Entrance Exam Score	-7234.19	34.11

Notes: Background factors are relatively controls for parental SES.

Table 3. ELGS Regression Coefficients for Female and Percentage of The Gender Income Gap with Alliterative Models, which includes Background, Values, Education, Family Formation and Work Factors

Model Number	Model Description	Income Gap (b female)	Percentage of Gap Explained
1	Female	-7753.639	_
2	Female, background, and values	-6535.345	14.3
3	Female, background, values and education	-3408.431	21.98
4	Female, background, values, education, and family formation	-3771.48	43.86
5	Female, background, values, education, family formation, and work	346.192	67.2
6	Female, background,	-6640.12	4.6

Note: Background factors are controls for parental SES. Values are measured by the importance of having lots of money. Education factors are the percentage female of the field of study, college entrance exam scores, highest degree earned, and selectivity of degree granting institution. Family formation factors are marital status Work factors are the number of hours worked per week, occupation, industry, and job training.

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Table 4: Regression Decompositions of Background, Values, Education, Family Formation, and Work Characteristics to the Gender Income Gap

Characteristic	Men's Slope	Women's slope	Average Model slope	Total Gap (%)	Rank of Influence
Background and SES	123	34	78	1.1	
Importance of getting money	473	285	379	5.6	8
Education factors including College Entrance Exam Score	452	229	340	4.9	6
Percentage female of college major	1,367	982	1,173	15.1	2
Institutional selectivity	20	61	41	0.7	10
Family Formation	16	4	10	11.4	3
Occupation	1,578	1,348	1463	27.9	1
Industry	489	481	486	8.1	4
Other factors	158	156	157	2.1	7
Total Explained with Factors	5,781	4,782	5,281	76.1	
Total Unexplained	1,791	2,316	2,053	23.9	
Total Income Gap	7,213	7,002	7107		

Note: Regression Decomposition Methods (Bobbitt-Zeher, 2007)

Findings and Discussion

It is worth noting the how to help female success in labor forces is essential to reduce gender income gaps in contemporary China. Indeed, female students success in schools and universities is a relatively education issue both among academics and public. Contextually speaking, Chinese is faced with tremendous barriers and obstacles to reduce gender income gaps and inequality of education in recent decades. In this sense, there have been some key questions of the consequences of these issues concerning on gender income inequality. In this study, young women's education performance is highly related to men's. Moreover, the findings of this study suggested that education plays a continuous role to influence gender stratification in a meaningful approach. In addition, the education factors, including college major and college type all contribute to affecting gender income gap. More importantly, field of study also influences the income inequality by occupational choices. Specifically, individual would like to work in some jobs that are closely related to the fields of study and some occupations are better than others. Statistically speaking, the regression decomposition method also indicated that college majors is much more important to women rather than other factors. Indeed, 27.9% of gender gap in income is related to field of study (occupation). While this study also suggested that the college major as an education factor play an important role to enlarge gender income difference in contemporary China. College educated women make less more than men even at the same level universities and institutions.

In addition, the regression decomposition also indicated that work-related factors could explain 44% of gender income difference. Hence, it seems that the gender income gaps is closely related to types of employment (occupation and industry). Moreover, family formation also matters not much at all. From a contemporary gender stratification perspective, providing a useful theoretical framework is extremely important to encourage gender equality (Charles and Grusky, 2004). Indeed, the gender gaps in college majors and occupations are considered as key dimension to influence gender income inequality basically (Charles and Bradley, 2002). Therefore, occupational gender inequality may increase gender income gaps in the labor market. This study also suggested that there is no sufficient reason to be positive toward further educational changes that would lead to large decreases in gender income gaps. In other words, if women keep their current trajectory of enhancing their educational credentials that related to men, they have to still encounter various barriers of gender segregation in college majors in current Chinese higher education system. Indeed, although women are educational improved, the gendered organization of higher education still maintains substantial impediments to reduce gender income gaps.

References

Archer, J. (1996). Sex differences in social behavior: Are the social role and evolutionary explanations compatible? American Psychologist, 51, 909-917.

Buss, D. M. (1985). Psychological sex differences: Origins through sexual selection. American Psychologist, 50, 164-168.

Buss, D. M., & Schmitt, D. P. (1993). Sexual strategies theory: An evolutionary perspective on human mating. Psychological Review, 100, 204-232.

Bem, S. L. (1981). Gender schema theory: A cognitive account of sex typing. Psychological Review, 88, 354-364.

Bradley, Karen. 2000. "The Incorporation of Women into Higher Education: Paradoxical Outcomes" Sociology of Education 73:1–18. Brown, Charles, and Mary Corcoran. 1997. "Sex-Based Differences in School Content and the Male-Female Wage Gap." Journal of Labor Economics 15:431–65.

Blau, Francine D., and Lawrence M. Kahn. 1997. "Swimming Upstream: Trends in the Gender Wage Differential in the 1980s." Journal of Labor Economics 15:1–42.

Bradley, Karen. 2000. "The Incorporation of Women into Higher Education: Paradoxical Outcomes" Sociology of Education 73:1–18

Donna Bobbitt-Zeher (2007) The Gender Income Gap and the Role of Education Sociology of Education 2007, Vol. 80 (January): 1–22

Budig, Michelle J., and Paula England. 2001. "The Wage Penalty for Motherhood." American Sociological Review 66:204–25.

Carter, D. B., & Levy, G. D. (1988). Cognitive aspects of children's early sex-role development: The influence of gender schemas on preschoolers' memories and preferences for sex-typed toys and activities. Child Development, 59, 782-793.

Davies, Scott, and Neil Guppy. 1997. "Fields of Study, College Selectivity, and Student Inequalities in Higher Education." Social Forces 75:1417–38

Eagly, A. H. (1987). Sex differences in social behavior: A social role interpretation. Hillsdale, NJ: Erlbaum.

Epstein, C. F. (1988). Deceptive distinctions: Sex, gender, and the social order. New Haven, CT: Yale University Press

Gerber, Theodore P., and David R. Schaefer. 2004. "Horizontal Stratification of Higher Education in Russia: Trends, Gender Differences, and Labor Market Outcomes." Sociology of Education 77:32–59.

Gill, Andrew M., and Duane E. Leigh. 2000. "Community College Enrollment, College Major, and the Gender Wage Gap." Industrial and Labor Relations Review 54:163–81.

Groshen, Erica L. 1991. "The Structure of the Female/Male Wage Differential: Is It Who You Are, What You Do, or Where You Work?" Journal of Human Resources 23:457–72.

Kilbourne, Barbara, Paula England, and Kurt Beron. 1994. "Effects of Individual, Occupational, and Industrial Characteristics on Earnings: Intersections of Race and Gender." Social Forces 72:1149–76.

Hetherington, E. M. (1967). The effects of familial variables on sex typing, on parent-child similarity, and on imitation in children. In J. P. Hill (Ed.), Minnesota symposia on child psychology (Vol. 1, pp. 82-107). Minneapolis: University of Minnesota Press

Kagan, J. (1964). The acquisition and significance of sex-typing and sex-role identity. In M. Hoffman & L. Hoffman (Eds.), Review of child development research, (Vol.1, pp. 137-167). New York: Russell Sage.

Kohlberg, L. (1966). A cognitive-developmental analysis of children's sex-role concepts and attitudes. In E. E. Maccoby (Ed.), The development of sex differences (pp. 82-173). Stanford, CA: Stanford University Press.

Farkas, George, Paula England, Keven Vicknair, and Barbara Stanek Kilbourne. 1997. "Cognitive Skill, Skill Demands of Jobs, and Earnings among Young European American, African American, and Mexican American Workers." Social Forces, 75:913–38.

Farley, Reynolds. 1995. State of the Union: America in the 1990s: Volume One. Economic Trends. New York: Russell Sage Foundation.

Fields, Judith, and Edward N. Wolff. 1995. "Interindustry Wage Differentials and the

Gender Wage Gap." Industrial and Labor Relations Review, 49(1):105-120.

Marini, Margaret Mooney. 1989. "Sex Differences in Earnings in the United States." Annual Review of Sociology 15:343–80.

Marini, Margaret Mooney, and Pi-Ling Fan. 1997. "The Gender Gap in Earnings at Career Entry." American Sociological Review 62:588–604.

Mitra, Aparna. 2002. "Mathematics Skill and Male- Female Wages." Journal of Socio-Economics 31:443–56.

Morgan, Laurie A. 1998. "The Earnings Gap for Women Engineers, 1982 to 1989." American Sociological Review 63:479–93.

Jacobs, Jerry. 1995. "Gender and Academic Specialties: Trends Among College Degree Recipients During the 1980s. Sociology of Education 68:81–98

Joy, Lois. 2000. "Do Colleges Shortchange Women? Gender Differences in the Transition from College to Work." American Economic Review 90:471–75.

Karen, David. 1991. "The Politics of Class, Race, and Gender: Access to Higher Education

Loury, Linda Datcher. 1997. "The Gender Earnings Gap among College-Educated Workers." Industrial and Labor Relations Review 50:580–93.

Simpson, J. A., & Kenrick, D. T. (Eds.). (1997). Evolutionary social psychology. Mahwah, NJ: Lawrence Erlbaum Associates